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AUDIO/VIDEO MULTI-CHANNEL RECEIVER

VSX-91TXH
VSX-9120TXH-K

Advanced MCACC MCACC advanced
PC Display Application Software

About this manual

These are the Operating Instructions for the PC Display Application Software, which displays on your PC the listening room reverberation frequency characteristics measured by the Advanced MCACC function of your VSX-91TXH or VSX-9120TXH. It explains everything you need to know to use the application, from installation to troubleshooting. You will need to operate the receiver to use this application, so please refer also to the Operating Instructions supplied with the receiver.

Operating Instructions

About the Advanced MCACC Application

The Advanced MCACC application software allows you to view graphs of the reverb characteristics of your listening environment on a PC. It works in the same way as “Reverb View” in “EQ Professional” of the receiver’s “Manual MCACC” menu (see page 41 in the receiver’s Operating Instructions), but the graphs are more precise and easier to understand by using a PC.

Requirements for using the application on your PC

- Operating system must be Microsoft® Windows® Vista, Windows® XP, Windows® 2000, Windows® Millennium Edition, Windows® 98 Second Edition, or Windows NT® 4.0 (Service pack 6).
- CPU must be at least Pentium 3 / 300 MHz or AMD K6 / 300 MHz (or equivalent) with at least 128 MB of memory, and your monitor must be able to display a minimum resolution of 800x600.
- An RS-232C port connector is necessary for graphical output. Refer to the PC’s operating instructions and/or the PC manufacturer for more information on making the proper port settings.

Microsoft®, Windows® XP, Windows® 2000, Windows® Millennium Edition, Windows® 98, and WindowsNT® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.

Main features of the application

1. Displays 3D graphs of the reverb frequency characteristics of your room. You can choose to see these measurements both with and without the equalization performed by this receiver (before and after calibration).
2. Allows you to view graphs in a number of different formats.
3. Allows you to save the measured reverb characteristics data on your PC.
4. Allows you to make memos about the conditions in your room when you made the measurements.
5. Allows you to print graphs.

Things you can accomplish with this application

1. Advanced EQ Setup, which you can do with the receiver (see page 41 in the receiver’s Operating Instructions), allows you to choose the optimum time period for auto EQ setup. You can use the graphs displayed by the application as a guide in choosing the best time period for your room.
   For details, see *How to Interpret the Graphs* (page 14).
2. Skewed reverb frequency characteristics in your listening room can prevent you from enjoying an accurate sound field. The graphs displayed by this application are a powerful tool because they allow you to check these reverb frequency characteristics at a glance. You can also check the effectiveness of steps that you take to improve the acoustics of your listening room, for example, installing sound absorbent material.
   For details, see *How to Interpret the Graphs* (page 14).

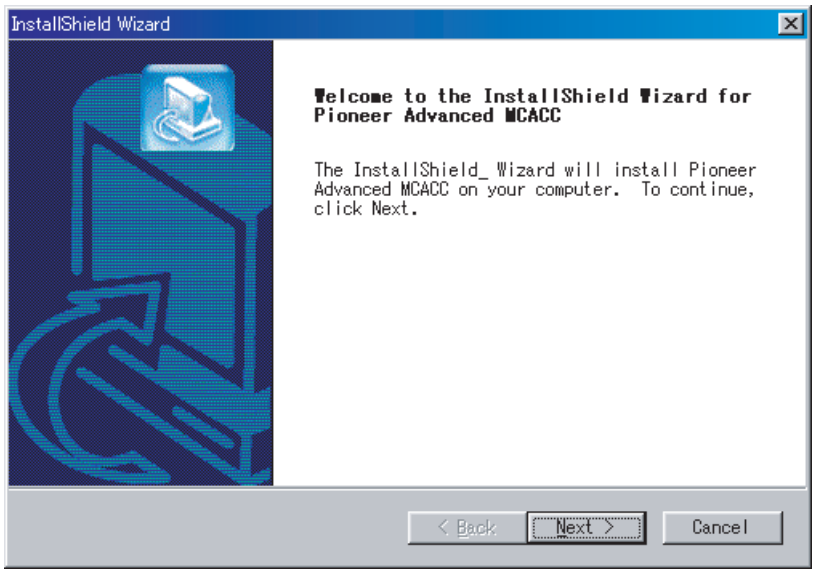
Installing the Application

Install this application on your PC by using the downloaded installer.
You will find the installer in the folder that you specified when you downloaded the application.

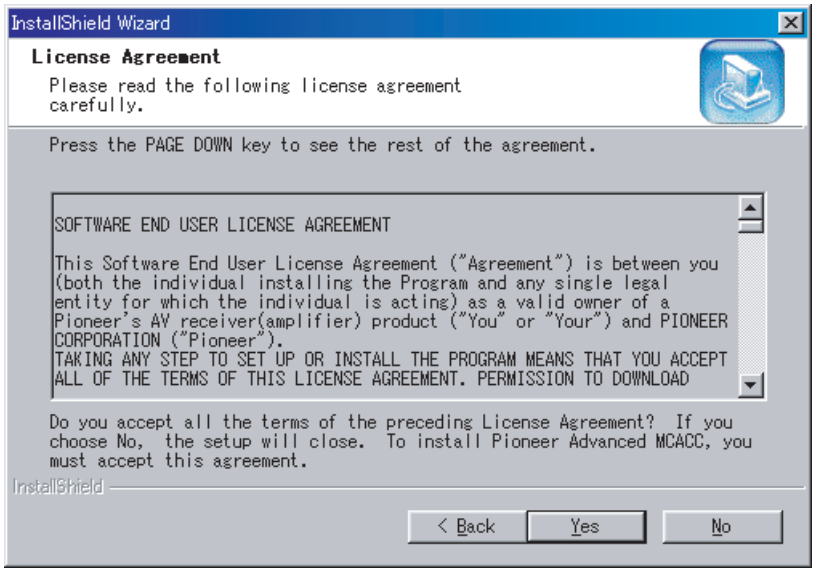
1 Double click the “PioneerAdvancedMCACC_e_ver_*_*.exe” file.

The number after “ver” in the filename is the version number of the installer.

2 Click “Next”.



3 Click “Yes” (if you agree to the terms of the License Agreement).



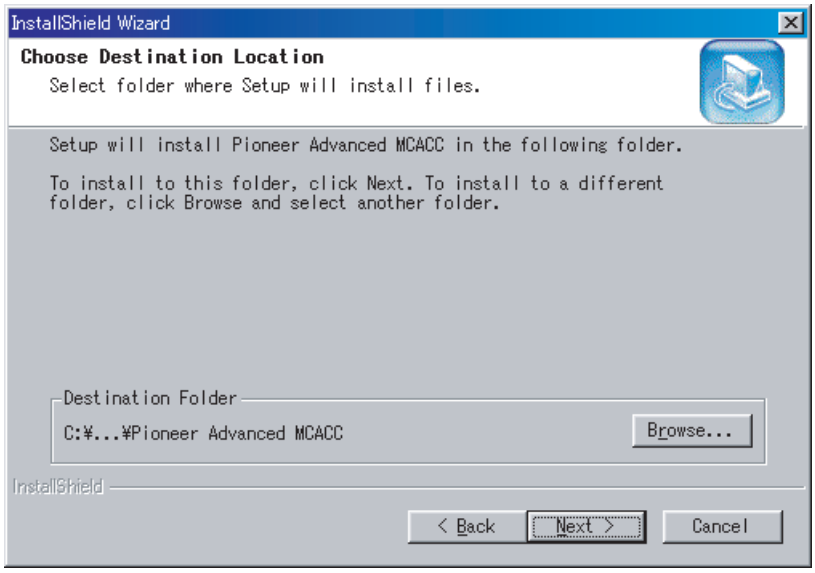
The destination selection screen of the installer appears.

Continue

Troubleshooting

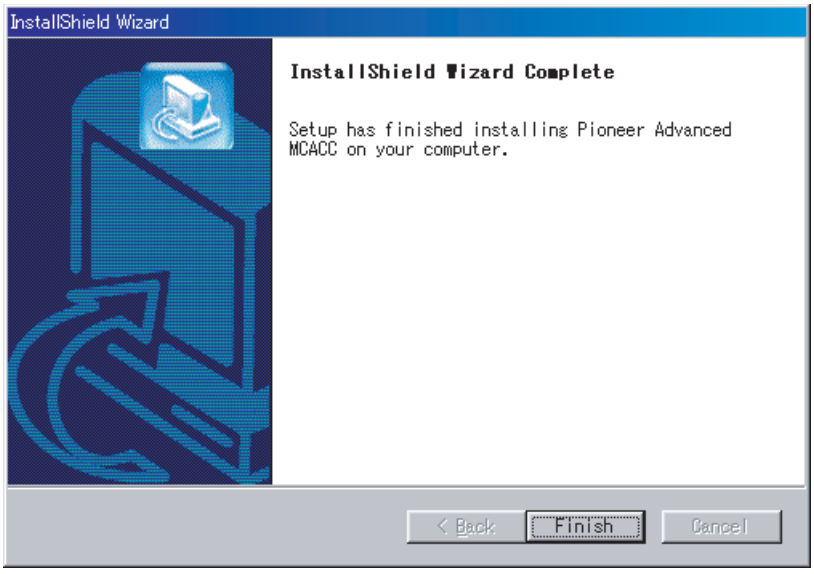
If an error occurs when you double click and you are unable to proceed with the installation.

4 Click “Next”.



The application is installed in the indicated folder, and a shortcut icon is created on the desktop. To select a different folder to install the application, click “Browse.”

5 Click “Finish”.



The installation is complete.

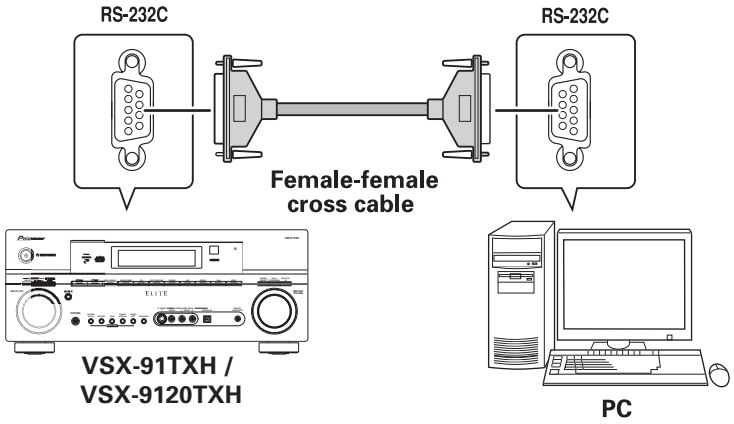
Operations on the Receiver and Cable Connections

To display reverberation characteristics measured with the receiver on your PC, you need to connect the receiver to the PC.

1 Connect the receiver to your PC with a RS-232C cable.

Caution

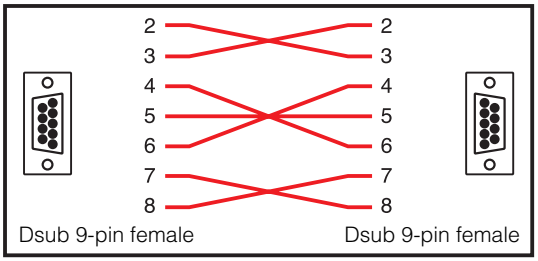
Before making or changing connections, switch off the power and disconnect the power cord from the power outlet. Plugging in components should be the last connection you make with your system.

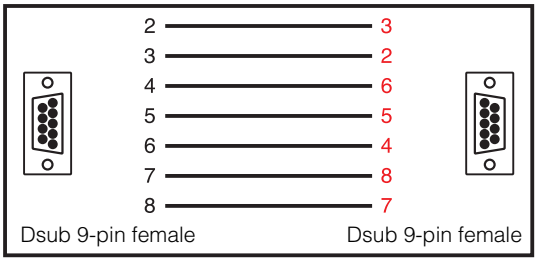


Notes

- The type of cable to use is a female-female cross cable. Different manufacturers use different names to refer to this type of cable. Sometimes it is called an “interlink” cable, and sometimes it is called a “reverse” cable.

Pin-out diagram of RS-232C cable to connect receiver and PC





- The following cable has been proved to ensure system operation.

Brand	Cable	Part NO.
Belkin	Pro Series Serial Direct Cable-10 feet	F3B207-10

Continue

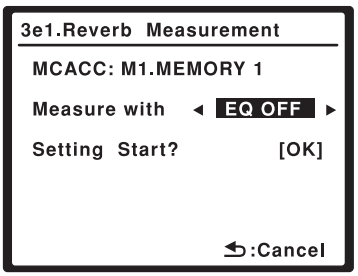
2 From the receiver's "Manual MCACC" menu, select "EQ Professional" then "Reverb Measurement" to measure the reverb characteristics of your room.

(For details, see page 41 of the receiver's Operating Instructions.)
Reverberation characteristics can also be measured with "Auto MCACC" but it takes longer than with "Reverb Measurement" because other settings will be made prior to reverb measurement.

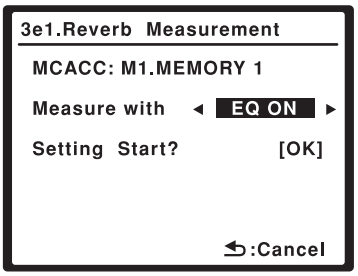
Note

Measurement using "Auto MCACC" is only available if you have selected "ALL", "ALL (Keep SPsetting)" or "Aco Cal EQ Pro." as the Auto Mode setting.

To see the reverb characteristics of your listening area *without* the equalization performed by this receiver (before calibration), select "EQ OFF":

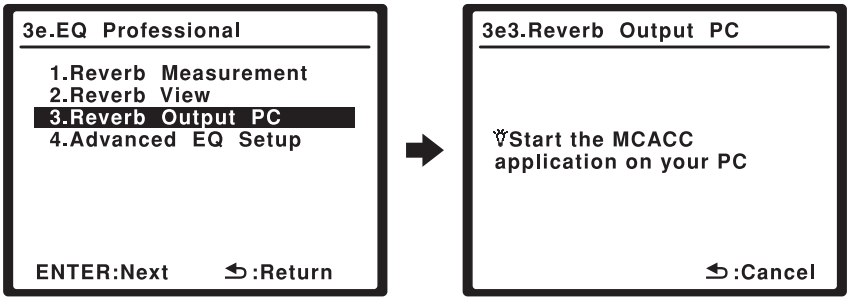


To see the reverb characteristics of your listening area *with* the equalization performed by this receiver (after calibration), select "ALL" or "ALL (Keep SPsetting)" as the Auto Mode setting in the Auto MCACC setup (see page 33 in the receiver's operating instructions), then select "EQ ON":



3 After measurement is complete, select "Reverb Output PC" in the on-screen display.

The message "Start the MCACC application on your PC" appears and the receiver enters transmission standby mode. It is ready to send data to your PC.



This completes the preparations for sending the measurement data to your PC.
(To send the data, proceed to the next section *Application Operations*.)

Application Operations

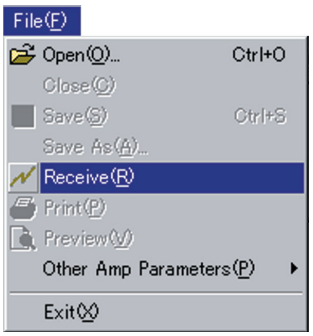
This section explains operations that you do in the application, from receiving measurement data to displaying graphs and saving the data.

Receiving measurement data

1 Double click the application shortcut icon on the PC desktop.

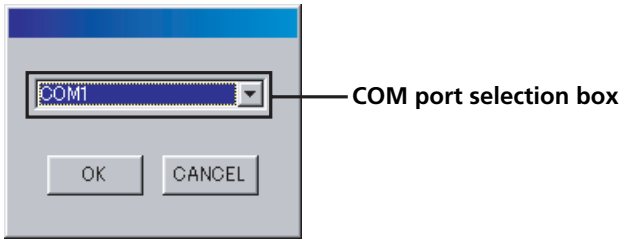
You can also start the application by selecting “Program” → “Pioneer Corporation” → “Advanced MCACC” from the “Start” menu.
The application starts.

2 Select “Receive” under “File” on the menu bar.

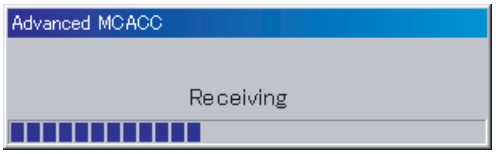


3 Select the number of the COM port to which the RS-232C cable is connected and click “OK”.

If you do not know which COM port number to select, try selecting each port in turn, beginning with “COM1”.



Data transmission starts. (It should finish in about 10 seconds.)



When reception finishes, graphs of the received data appear.

Notes

- Refer the operating instructions of your PC for more information about COM port settings.
- In order to avoid malfunction, after the completion of the data transmission, unplug the RS-232C cable connecting your PC and the receiver.

Continue

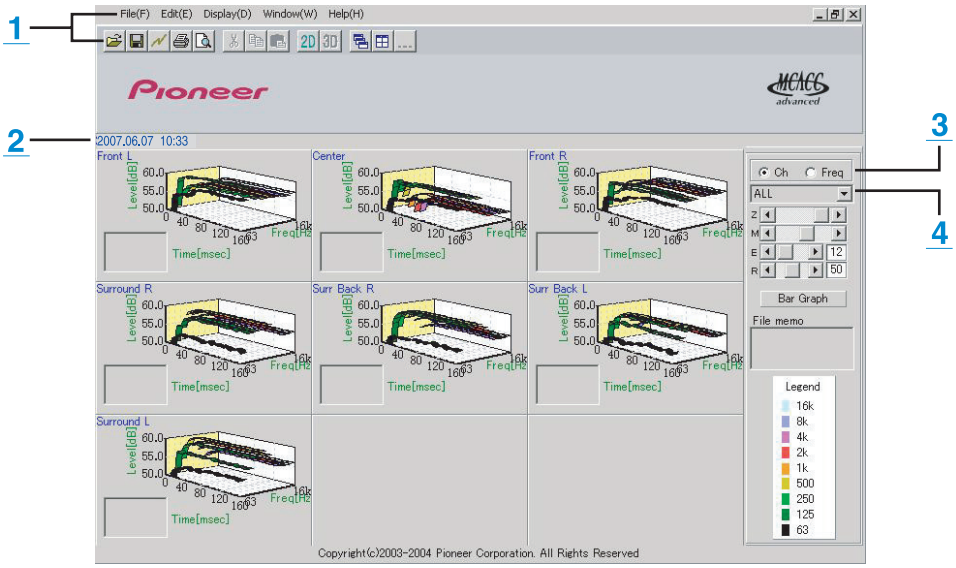
Troubleshooting

If an error occurs when you select “Receive” and no data is sent.

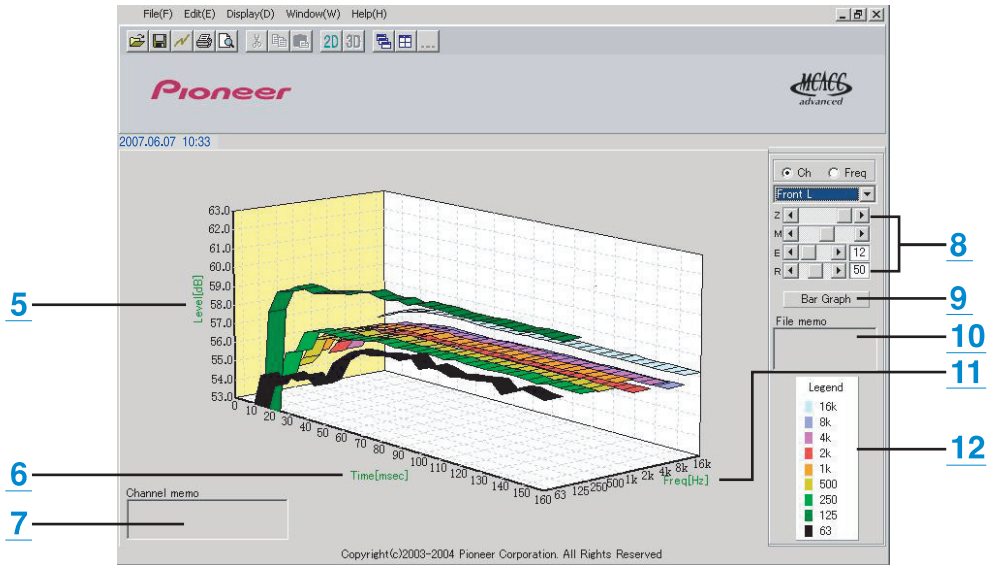
Graph displays (names and functions of parts)

When data is received, the first display to appear shows graphs for all channels (ALL display).
This section explains the parts shown in ALL display and individual display.

ALL display



Individual display (Example: Front L channel)



Continue

1 Menu bar and menu icons

You can choose the following commands from the application menus.

File	
Open	Opens a file that has been saved on the PC (see page 13).
Close	Closes a file.
Save	Save measurement data in a file (see page 12).
Save As	
Receive	Receives measurement data (see page 7).
Print	Prints the current individual graph.
Preview	Displays a preview screen to show how the printed page will appear.
Other Amp Parameters	Receives various data (see page 20).
Exit	Exits the application.

Display	
Graph(G) **Graph** 2D 3D	Switch between 2D (two-dimensional graphs) and 3D (three-dimensional graphs).
Demo	Displays 3D graphs with rotating.*

* To finish, reselect and uncheck the box.

Window	
Cascade	Cascades files.*
Tile	Tiles files.*
Arrange	Arranges minimized icons.*

* Available when two or more files are open.

Help	
Version Info	Displays the version of the application.

Continue

2 Date and time
Display the date and time when the measurement data was transferred to the PC.

3 Channel and frequency switch buttons
Ch: Selects channel display mode (frequencies are displayed along graph depth axes).
Freq: Selects frequency display mode (channels are displayed along graph depth axes).

4 All/individual display switch menu
Allows you to select All display or individual display (Front L, etc.).

5 Level [dB]
The level axis.

6 Time [msec]
The time axis.

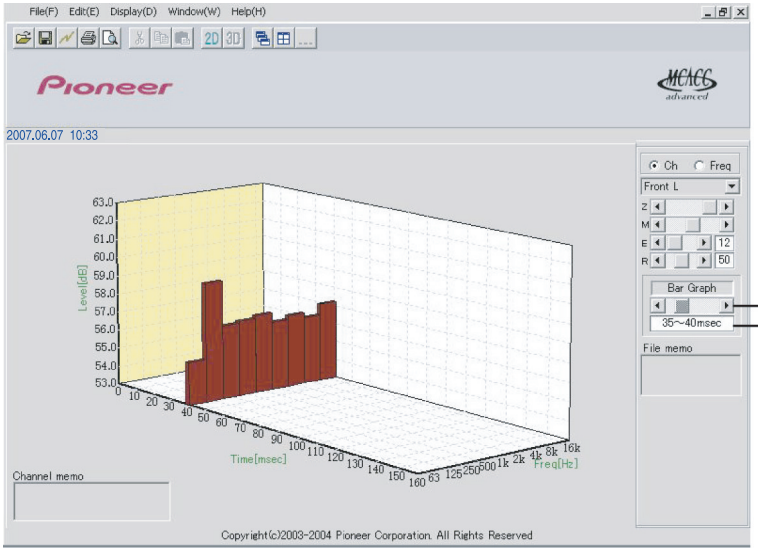
7 Channel memo (available only when individual channels are shown)
Allows you to record a short memo about each channel.

8 Graph adjustment bar
Z: Increases or reduces the display unit of the Level [dB] scale.
M: Moves the Level [dB] scale.
E: Moves the viewpoint of 3D graphs vertically. (Cannot be changed for 2D graphs.)
R: Moves the viewpoint of 3D graphs horizontally. (Cannot be changed for 2D graphs.)

Continue

9 Bar Graph

Changes the type of graph display. The display switches between the band graph and bar graph by pressing this button.



Moves the viewpoint of the time axis.

10 File memo

Allows you to record memos about conditions when the measurements were made.

11 Freq [Hz]/Channel

In channel display mode, it becomes the frequency axis. In frequency display mode, it becomes the channel axis.

12 Legend

Shows which colors in the graphs correspond to which channels or frequencies.

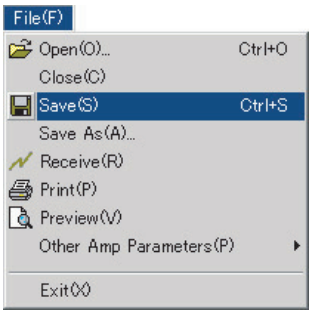
Continue

Saving graphs in data files

You can save measurement data received from the receiver on your PC. Data received at one time is saved in one file.

1 To save measure data, choose “Save” from the “File” menu.

If you have data that has already been saved and want to save it under a new name, choose “Save As.”



2 Check the save location, assign a file name, then click “Save”.

The data is saved in a CSV format file (the file extension is “.csv”).

When you are finished saving data, you should (using the receiver controls) press “RETURN” to exit the Reverb Output PC screen. This takes the receiver out of transmission standby mode. (See page 58 in the receiver’s Operating Instructions.)

Note

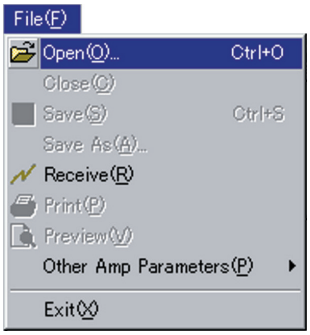
The CSV format file is often used to transfer data to applications such as databases and spreadsheets. You can use these applications to view the numeric values in your measurement data.
However, if you use another application to edit the data and then save the file, the Advanced MCACC application may be unable to open the file.

Continue

Opening data files

You can open and display two or more data files to compare the data in the files.

1 Select "Open" from the "File" menu in the menu bar.

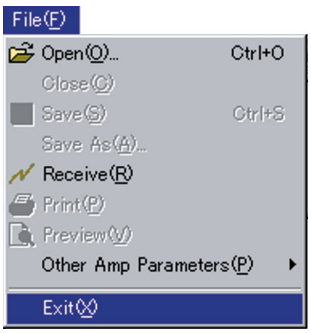


2 Select a file to display and click "Open".

Graphs appear for the data saved in the file.

Exiting the application

1 Select "Exit" from the "File" menu.



The application closes.

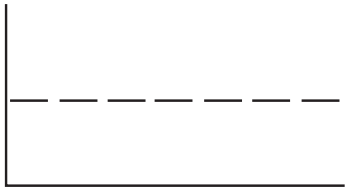
How to Interpret the Graphs

As explained in *Things you can accomplish with this application* on page 2, you can use the graphs displayed in this application to choose the optimum time period for auto EQ setup with the receiver's Advanced EQ Setup function, and to check the effectiveness of steps you take to improve the acoustics of your listening room.

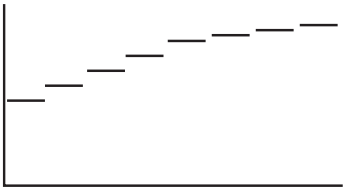
How to interpret reverb graphs

The graphs show changes in microphone input level along a time axis, beginning from a state of quiet at time 0, when test tones begin to be output, and continuing while a constant level of sound is output from the speakers.

- If there is absolutely no reverberation in your room, the graph will look like figure A below.
- If there is reverberation, the graph will show a gradual accumulation of acoustic power, as shown in figure B.



A



B

Notes

- Due to an effect known as "group delay", lower frequencies may take longer to be generated than higher frequencies (this is most obvious when comparing the frequencies around 0 ms).
- If a graph extends beyond the display range, or almost fills it, you can change the display by using the Z (Zoom) control on the graph adjustment bar, adjusting the display range of the Level [dB] scale so that the whole graph is visible.
- Since channel level and speaker distance settings are displayed in the graphical output, it is best to make sure these settings (made in the Auto MCACC "ALL" or "Channel Level" setup) are adjusted properly before reverb measurement.
- Even in cases where there is a great difference in the output levels of different frequencies (the frequency characteristics of the room are poor), you can select ALL CH ADJUST (default) from the "EQ Type" setting in the receiver's Auto MCACC setup to bring the frequency characteristics for each channel closer to a flat response. (For details, see pages 34 to 35 in the receiver's Operating Instructions.)
- It is usually not possible to calculate the equalization values employed by the receiver's Acoustic Cal EQ function simply by viewing the graphs displayed on your PC. (This is because the automatic adjustments made by Acoustic Cal EQ function take account of factors such as equalization band interference and analytical filter characteristics, to achieve the optimum characteristic profile.)

Continue

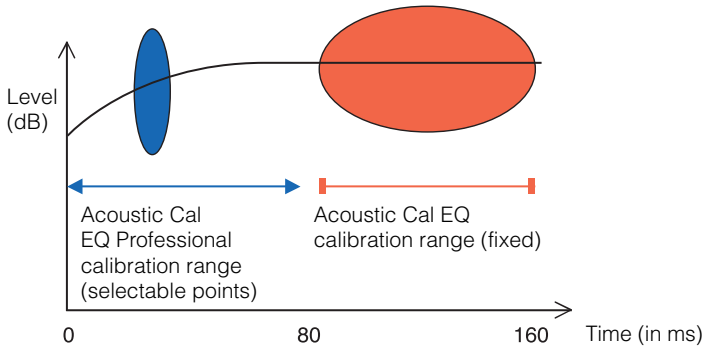
Deciding the time period for Advanced EQ Setup calibration

When you are using Acoustic Cal EQ calibration (instead of EQ Professional calibration), the input data from the microphone is analyzed at fixed time periods from 80 to 160 msec (the red area in Figure 1). Advanced EQ Setup allows you to choose a point (20 msec width) in the range from 0 to 80 msec (the blue area in Figure 1).

Note

You can specify the time period setting using the “Advanced EQ Setup” in the “EQ Professional” sub-menu (in the “Manual MCACC” menu). This setting is not required if you’re satisfied with the results of the “Auto MCACC” setup (For details, see pages 39 to 41 in the Operating Instructions).

Figure 1 Comparison of microphone data acquisition time periods

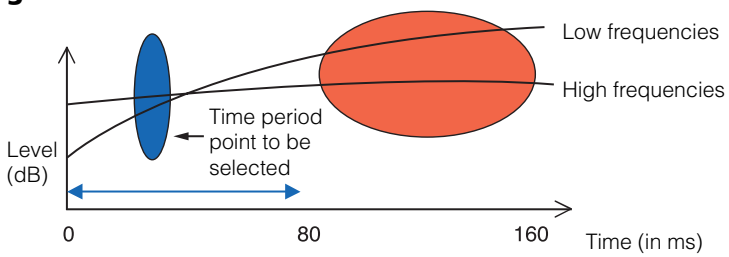


To decide the time period for Advanced EQ Setup calibration, view the graphs of the measured reverb characteristics, and refer to the following three patterns.

Pattern 1: Different reverb characteristics for high and low frequencies

In rooms with reverb characteristics like those shown in Figure 2, lower frequencies often seem overly reverberant compared to higher frequencies (i.e. the room sounds ‘boomy’). If you calibrate the receiver using the Acoustic Cal EQ setting, data will be acquired in the 80 to 160 msec range (the red area of Figure 2). The analysis concludes that low frequencies are too loud and high frequencies are too soft, so it adjusts the equalization curve to strengthen high frequencies. In fact, however, the high frequencies may already be loud enough if measured within 40 msec, which is the time it takes for sounds coming directly from the speakers to reach your ears. Therefore, the Acoustic Cal EQ may result in a room where high frequencies sound shrill. **In cases like this, setting the time period for Advanced EQ Setup to 30 to 50 msec (the blue area in Figure 2) to adjust for sounds coming directly from the speakers can flatten the frequency response for direct sounds (including initial reflections) and give a better-balanced sound field.**

Figure 2

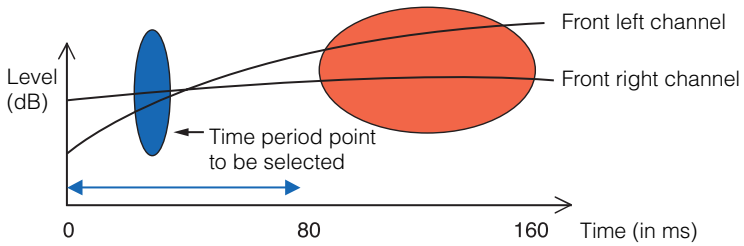


Continue

Pattern 2: Different reverb characteristics for different channels

When different channels can have different reverb characteristics, as shown in Figure 3, it is not so effective to calibrate using the Acoustic Cal EQ. In general, a sound field with good acoustic positioning and movement is made up by sounds coming directly from the speakers (including initial reflections). This is the reason why you should use a calibration method that enables you to adjust direct sounds. In pattern-2 cases, the Acoustic Cal EQ is not able to adjust frequency characteristics for sounds coming directly from the speakers. It acquires data in the 80 to 160 msec range (the red area in Figure 3.), so its adjustment ability is limited to sounds 80 msec or longer. **In cases like this, you should use Advanced EQ Setup and set the time period to 30 to 50 msec (the blue area in Figure 3). This allows the characteristics of direct sounds to be balanced for each channel, giving an ideal sound field with good acoustic positioning and movement.**

Figure 3

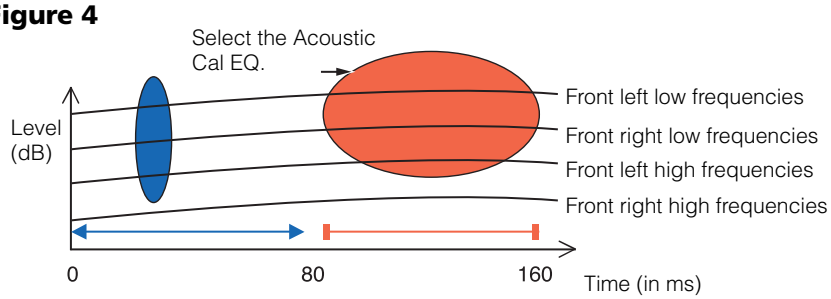


Pattern 3: Similar reverb characteristics for high and low frequencies and all channels

As shown in Figure 4, when the reverb characteristics for all channels are similar across all frequencies, your sound experience will probably not be adversely affected by reverberation. **Instead of Advanced EQ Setup, we recommend that you use the "Acoustic Cal EQ" setting from the "Auto MCACC" option menu. This produces a total calibration for both direct sounds and reverberations, resulting in an ideal sound field.**

(See page 34 to 35 in the receiver's Operating Instructions.)

Figure 4



Notes

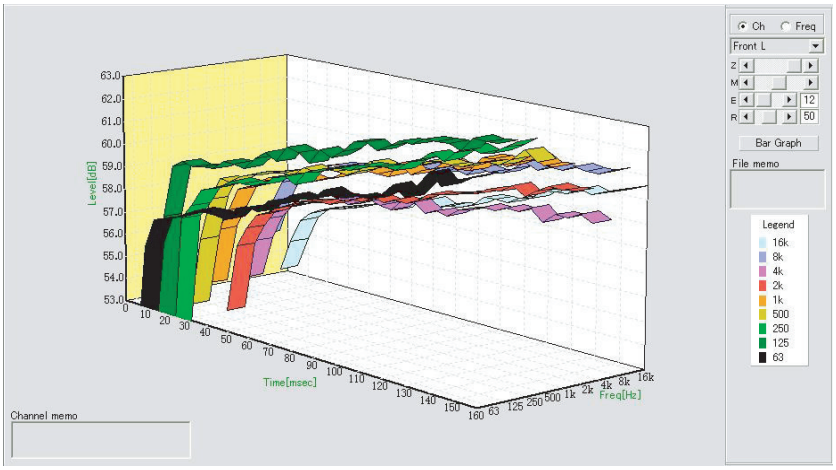
- If you are not sure which time period to specify in Advanced EQ Setup, start by trying 30 to 50 msec. If the graphs show an unusual reverb curve for a specific frequency, the cause may be some accidental variation. Instead of selecting 30 to 50 msec, try another time period.
- Another good method is to try various time periods in Advanced EQ Setup and select the one which sounds the best.
- Time period settings cannot be made on the PC. They can only be made on the on-screen display of the receiver, using the receiver's Advanced EQ Setup function.

Continue

Checking steps to improve your room's reverb characteristics

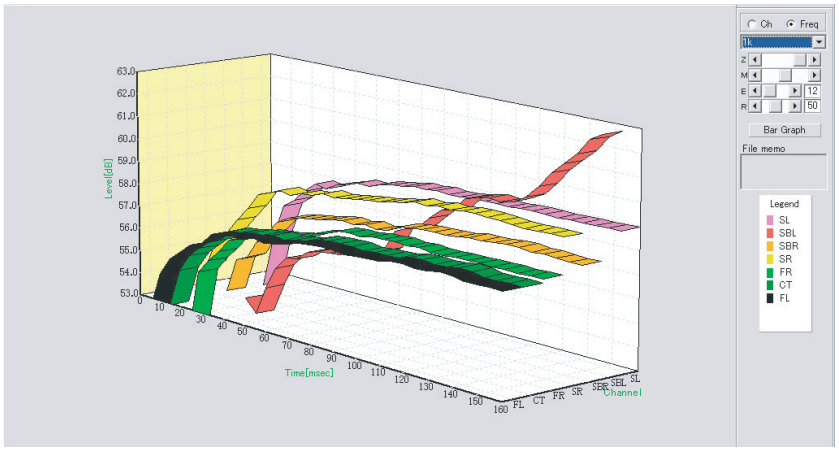
The reverb characteristics of your listening room graphs are evident from the graphs. For your reference, the following four examples explain how different types of rooms appear in the graphs.

Case 1: Graph rises to right across all frequencies



This is probably a room with a good deal of reverberation. If possible, we recommend that you try installing some sound absorbent material to create a deader acoustic space according to your preference.

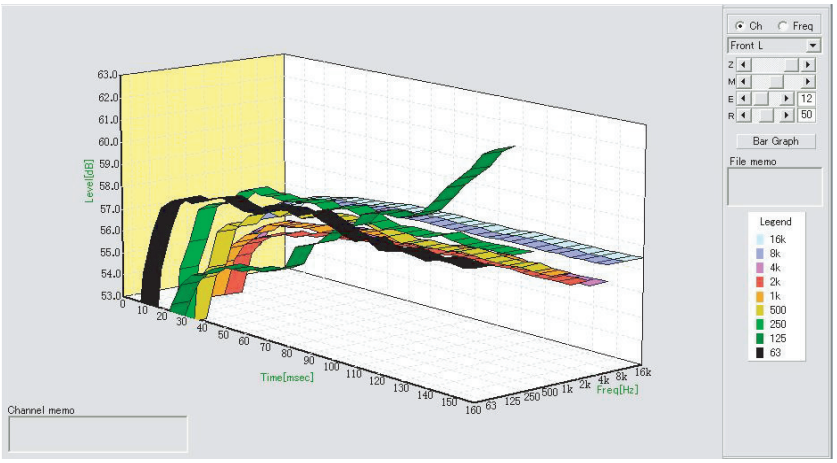
Case 2: Specific channel shows unusual reverb characteristics



There is probably some object near the speaker which affects sound reproduction. If possible, we recommend that you try to reduce the influence of that object.

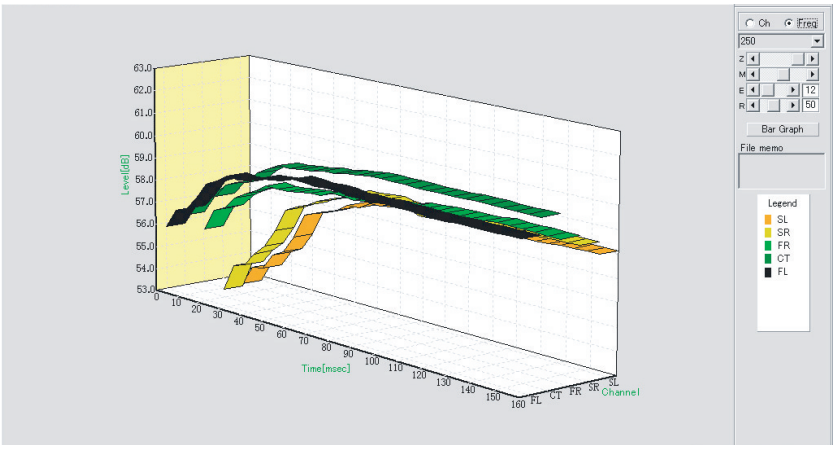
Continue

Case 3: Specific frequency shows unusual reverb characteristics



There is probably something in the room that affects the reproduction of that frequency. If possible, try to find an arrangement that reduces the effect.

Case 4: A specific channel is slow to start



This can happen when a speaker is unstable. If possible, we recommend that you try to stabilize the speaker stand, to bring the characteristics of that channel into line with the other channels.

Note

In all of these cases, you can use the “ALL”, “ALL(Keep SP Setting)” or “Aco Cal EQ Pro.” setting from the “Auto MCACC” option menu to automatically achieve the optimal calibration for the characteristics of your listening area.(See page 34 to 35 of the receiver’s Operating Instructions.)

Continue

Displaying reverb characteristics after calibration

To display the graph of your listening area's reverb characteristics with the equalization performed by this receiver (after calibration), you'll need to select the "EQ ON" option from the "Reverb Measurement" menu. Using this graph, you can confirm the effects of MCACC calibration for your listening area.

1 Connect the receiver to your PC with a RS-232C cable.

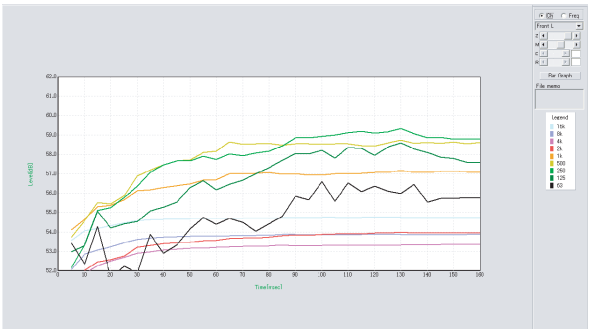
See page 5 for more on connecting the RS-232C cable.

2 Make sure you have completed the "Auto MCACC" setup from the receiver's "System Setup" menu.

Use either the "ALL" or "ALL (Keep SPsetting)" Auto Mode option ("Aco Cal EQ Pro." calibration is also performed in this case).

3 Select "Reverb Output PC" from the receiver's "EQ Professional" menu.

When you receive and save this information on your PC, you will be able to see the graph of your listening area's reverb characteristics before calibration.

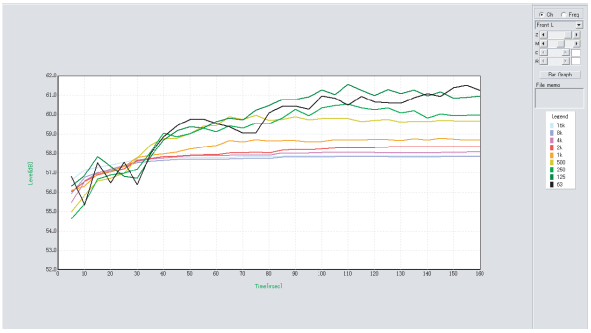


4 Select "Reverb Measurement" from the receiver's "EQ Professional" menu and choose the "EQ ON" option as explained on page 41 of the receiver's manual.

The EQ measurement will correspond with the currently selected MCACC preset (M1–6).

5 Select "Reverb Output PC" from the receiver's "EQ Professional" menu.

When you receive and save this information on your PC, you will be able to see the graph of your listening area's reverb characteristics with the equalization performed by this receiver (after calibration). The following graph shows the reverb measurement results *after* Aco Cal EQ Pro. calibration (with a time period setting of 20-40ms):



Notes

- "Reverb Measurement" calibration data will be lost if the power is switched off.
- The graphs displaying reverb measurements both before and after calibration are displayed in 2-D for comparison purposes.

Other Functions

In addition to the reverb frequency characteristics data measured by Advanced MCACC, you can receive setting data from the receiver on your PC to check the data, and save the setting results on your PC.

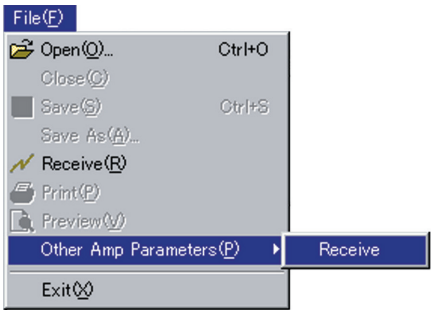
Receivable measurement data

1. Speaker Setting (Setting of the speaker system and crossover frequency)
2. Channel Level (Setting of the speaker output level)
3. Speaker Distance (Setting of the distance to the speaker)
4. X-Curve (Tonal balance of the speaker system for movie soundtracks)
5. Acoustic Cal EQ (Calibration of reverb characteristics in the listening environment)

Receiving and saving measurement data

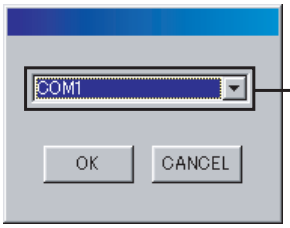
Before starting the reception, check that the receiver is properly connected to your PC (page 5), you have selected the MCACC preset you wish to apply (page 29 of the receiver manual), and that the receiver enters the transmission standby mode by the operation of the receiver (page 6).

1 Select "Other Amp Parameters" → "Receive" under "File" on the menu bar.



2 Select the number of the COM port to which the RS-232C cable is connected and click "OK".

* If you don't know which port number to select, try selecting each port in turn, beginning with "COM1".

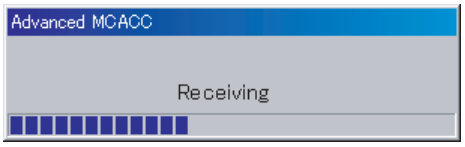


COM port selection box

Note

Refer to the operating instructions of your PC for more information about COM port settings.

Data transmission starts. (It should finish in about 10 seconds.)



When reception finishes, the screen of the message "save as" appears.

Continue

3 Check the save location, assign a file name, then click “Save”.

The data is saved in a CSV format file (the file extension is “.csv”).

Notes

- In order to avoid malfunction, after the completion of the data transmission, unplug the RS-232C cable connecting your PC and the receiver.
- You will still be able to receive the data saved in MCACC MEMORY (using the “Other Amp Parameters” option) when receiver power has been switched off.

Opening measurement data files

You can open the saved CSV format file by using other application software (ex. spreadsheet software) besides this application.
The following information related to Speaker Setting, Channel Level, Speaker Distance and Acoustic Cal EQ will appear with the date the PC receives the data files.

	A	B	C
1	[DATE]		
2	2006.05.23 13:52		
3			
4	* Speaker Setting		
5			
6	Front		Large
7	Center		Large
8	Surround		Large
9	Surr Back		Large x 2
10	Sub Woofer		Yes
11			
12	Crossover		80Hz
13			
14	* Speaker Distance		
15			
16	Left		10.00feet
17	Center		10.50feet
18	Right		10.50feet
19	Surround R		8.00feet
20	Surr Back R		8.50feet
21	Surr Back L		8.50feet
22	Surround L		8.00feet
23	Sub Woofer		11.50feet
24			
25			
26	* Channel Level		
27			
28	Left		-2.0dB
29	Center		-5.0dB
30	Right		-2.0dB
31	Surround R		-1.5dB
32	Surr Back R		+0.5dB
33	Surr Back L		-1.0dB
34	Surround L		-1.0dB
35	Sub Woofer		-6.0dB

	A	B	C	D	E	F	G	H	I	J	K	L
38	* Acoustic Cal EQ											
39												
40	All Ch Adjust		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	Trim
41	Left		+2.5dB	+3.5dB	-3.0dB	-4.0dB	-0.5dB	+3.5dB	+2.0dB	-1.5dB	-2.5dB	-0.5dB
42	Center		+4.5dB	-3.5dB	+1.5dB	-3.5dB	-4.5dB	0.0dB	+2.5dB	+2.5dB	+0.5dB	+3.0dB
43	Right		+3.0dB	+3.5dB	-1.0dB	-4.0dB	-2.0dB	+3.0dB	+3.5dB	-1.0dB	-5.0dB	+1.0dB
44	Surround R		+5.5dB	+1.5dB	-2.5dB	-2.5dB	-2.5dB	+2.0dB	+0.5dB	-0.5dB	-2.0dB	+1.0dB
45	Surr Back R		+3.0dB	-2.0dB	+3.5dB	-2.5dB	+0.5dB	0.0dB	0.0dB	-0.5dB	-2.0dB	0.0dB
46	Surr Back L		+3.5dB	-3.0dB	+2.5dB	-2.5dB	+0.5dB	+0.5dB	-0.5dB	0.0dB	-1.0dB	0.0dB
47	Sub Woofer		+6.0dB	+2.0dB	-1.5dB	-3.0dB	-2.0dB	+1.0dB	+0.5dB	-0.5dB	-2.5dB	+1.0dB
48												
49	Front Ch Align		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	Trim
50	Center		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
51	Surround R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
52	Surr Back R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
53	Surr Back L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
54	Surround L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
55												
56	Custom1		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	Trim
57	Left		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
58	Center		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
59	Right		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
60	Surround R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
61	Surr Back R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
62	Surr Back L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
63	Surround L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
64												
65	Custom2		63Hz	125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz	16kHz	Trim
66	Left		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
67	Center		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
68	Right		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
69	Surround R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
70	Surr Back R		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
71	Surr Back L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
72	Surround L		0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB	0.0dB
73												
74	* X-Curve											
75			OFF									

Notes

- When using the “Acoustic Cal EQ” Auto Mode with the “Auto MCACC” setup, the results will only appear for the EQ Type you selected (“All Ch Adjust” or “Front Ch Align”). Also, if you have used the Manual MCACC “EQ Adjust” setup, the results for “Custom 1” will appear (even if you have manually adjusted the results from the “Auto MCACC” setup). Note that results will not appear for “Custom 2”.
- Note that adjustments made for Standing Wave control will not appear.

Continue

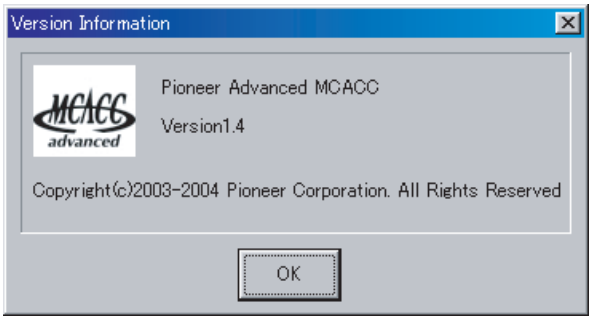
Updating and Deleting the Application

Updating the application

A new installer is made available on the download site whenever the Advanced MCACC application is updated. You can download the new installer and use it to overwrite (update) the application on your PC.

Note

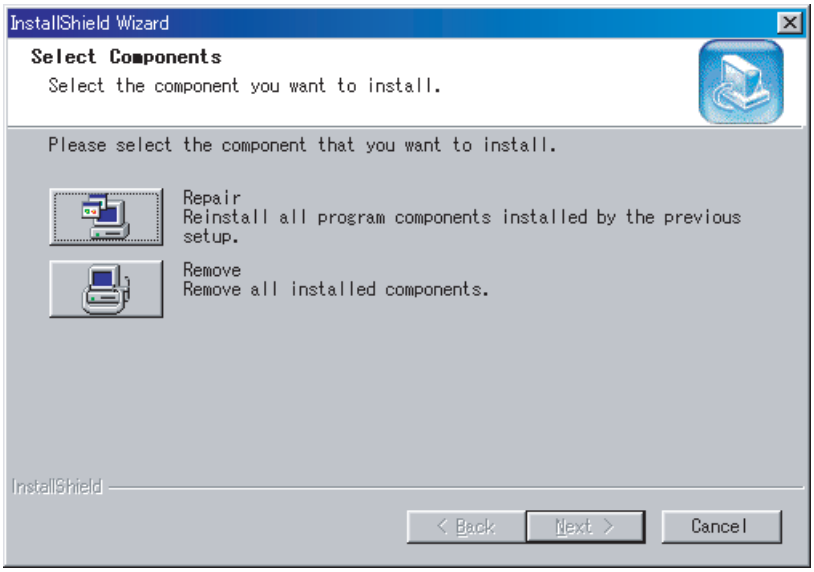
To check the version of your application, choose “Help” → “Version Info” from the menu bar. A window showing the version (Version 1.4, etc.) appears.



1 Double click the new downloaded installer.

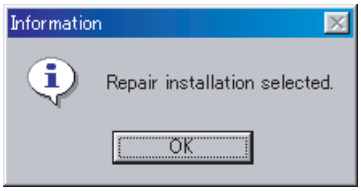
The Install Shield Wizard appears.

2 Click “Repair”.

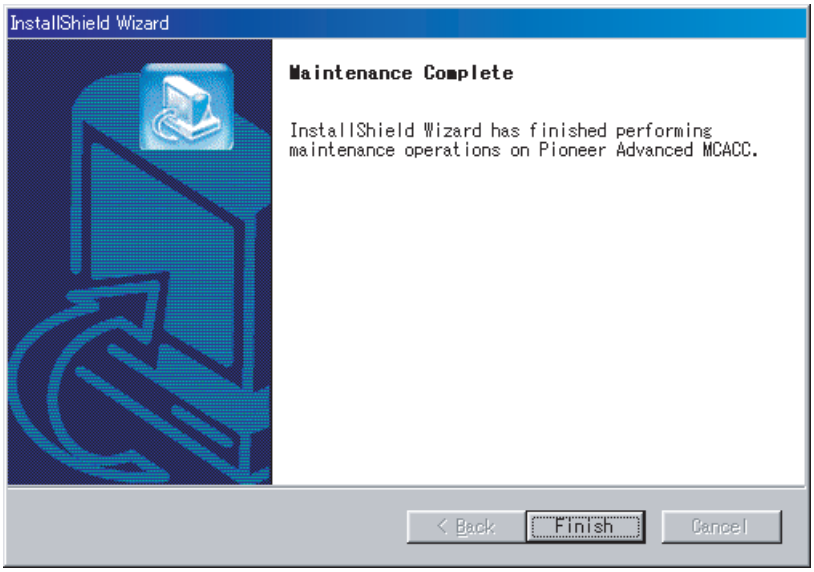


Continue

3 Click “OK”.



4 Click “Finish”.



This completes the updating of the application.

Continue

Troubleshooting

If an error occurs when you click “Repair” and you are unable to proceed with the installation.

Deleting the application

You can use either of the following methods to uninstall (delete) the application from your PC.

Method 1: Delete from the Control Panel of the PC

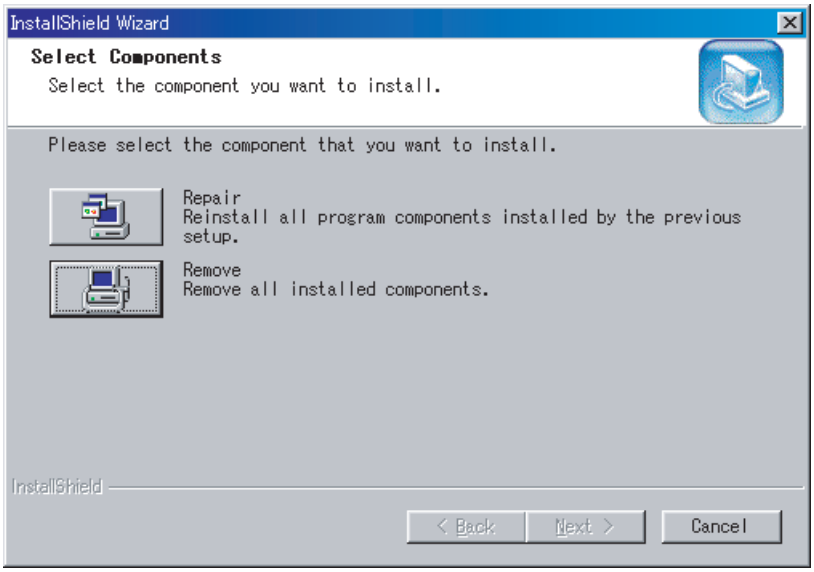
From the Start menu, click “Setting” → “Control Panel” → “Add/Remove Programs”.

Method 2: Use the downloaded installer to delete the application

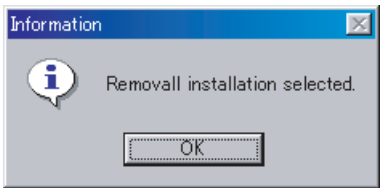
1 **Double click the “PioneerAdvancedMCACC_e_ver_*_*.exe” file .**

The Install Shield Wizard appears.

2 **Click “Remove”.**

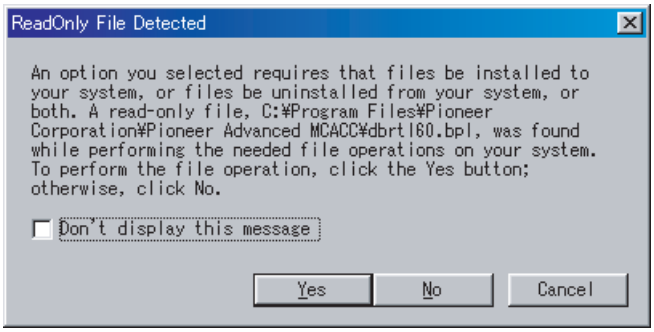


3 **Click “OK”.**



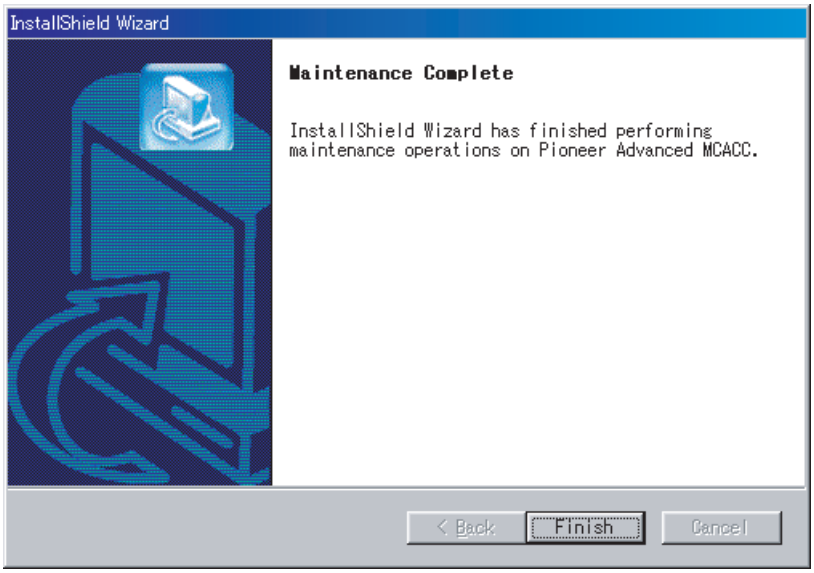
Continue

4 Click “Yes”.



After you click “Yes”, the same screen may appear again. If it does, click “Yes” again.

5 Click “Finish”.



This completes the deletion of the application.

Troubleshooting

As you use the Advanced MCACC application, errors can occur for a variety of reasons, such as incompatibilities with other applications and the current configuration of your PC. If an error occurs, refer to the troubleshooting points below.
If the trouble cannot be rectified even after checking the points listed below, ask the Pioneer Customer Support Division (USA) or Customer Satisfaction Department (Canada).

Pioneer Electronics (USA) Inc. Customer Support Division	**TEL: 800-421-1404**
Pioneer Electronics of Canada, Inc. Customer Satisfaction Department	**TEL: 1-877-283-5901**

The application is unstable, or does not work normally

Cause:

If your PC does not meet the requirements for using this application, the application can be unstable, very slow, or freeze up.

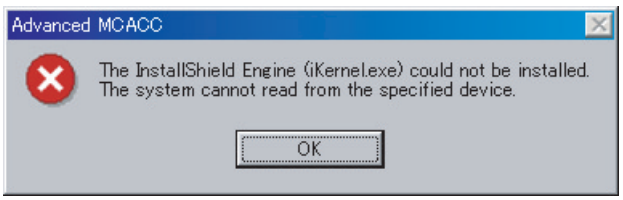
Check to be sure that your PC meets the requirements for using this application. (See page 2.) You cannot use this application unless your PC meets all of the requirements.

Advanced MCACC cannot be installed

Cause 1:

An error message may appear if there are not enough system resources available.

If an error message like the one shown below appears, re-start the PC, then start the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) with no other applications active.



Cause 2:

Installation of Advanced MCACC may fail because of incompatibilities with other applications.

Try the following, in the order indicated.

1) If there are any other applications active, exit the other applications and try starting the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) again.
2) If that does not work, try restarting your PC, and starting the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) with no other applications active.

Continue

Cannot send measurement data to PC

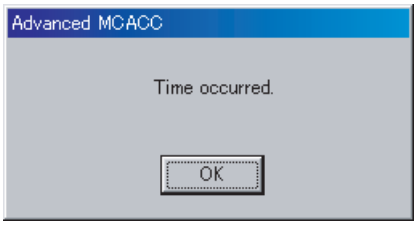
Cause 1:

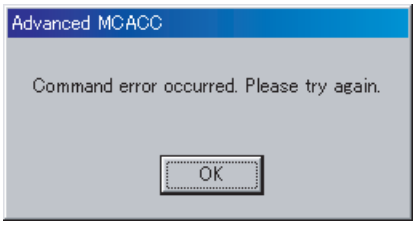
Random transmission errors sometimes occur.

Even if an error occurred on your first attempt, try sending the data again. Sometimes the transmission succeeds when you try again.

Cause 2:

Messages like the following may appear if a transmission error occurs.



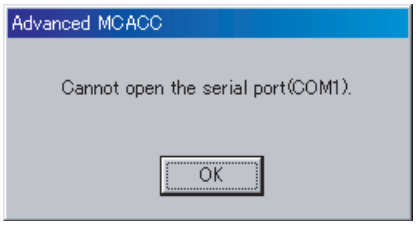


Try the following, in the order indicated.

1) In the setup screen of the receiver, check that “Start the MCACC application on your PC” is displayed. (This message indicates that the receiver is ready to send data to the PC.)
2) Check that the RS-232C cable is properly connected. (Be sure to switch off all components and disconnect their power cord from the power outlets before changing any cable connections.)
3) Exit any other active applications.
4) Check the COM port number.
5) Check the type of RS-232C cable to use is correct (page 5).
6) Restart the Advanced MCACC application.
7) Restart your PC.

Cause 3:

The following message may appear and the data transmission may be not available.



Refer to the operation manual for PC or the application software using the COM port, and make the connecting COM port available for transmission.

Continue

Advanced MCACC cannot be updated

Cause 1:

An error message may appear if there are not enough system resources available.

If an error message appears (like the one explained above in Cause 1) of *Advanced MCACC cannot be installed* (page 26), restart your PC and start the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) with no other applications active.

Cause 2:

Updating of Advanced MCACC may fail because of incompatibilities with other applications.

Try the following, in the order indicated.

1) If there are any other applications active, exit the other applications and try starting the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) again.
2) If that does not work, try restarting your PC, and starting the installer (PioneerAdvancedMCACC_e_ver_*_*.exe) with no other applications active.

Cause 3:

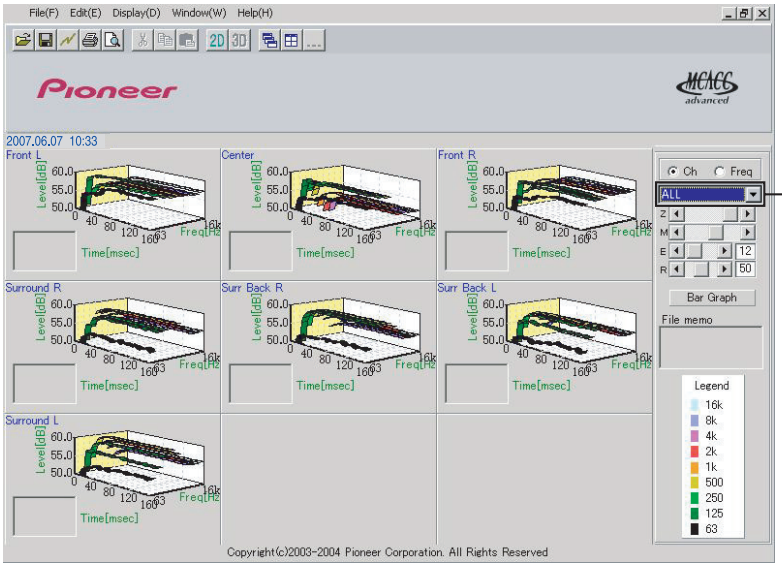
Under some PC configurations, updating may not succeed even if you click "Repair."

Select "Remove" to delete the application, then try reinstalling the new version of the Advanced MCACC application.

Graphs cannot be printed

Cause:

The ALL display mode graphs cannot be printed.



ALL display

Print after selecting an individual channel or frequency graph.

Continue

Some functions in application operation cannot be used

Cause:

You may not properly use the application software not corresponding to your receiver.

Check the model number of your receiver and use the application software corresponding to it.

The receiver causes a malfunction when it is connected to the PC with a RS-232C cable

Cause:

When the receiver is connected to your PC with a RS-232C cable, the power of the receiver may be automatically switched on when you operate the PC.

Unplug the cable when not in use.

EQ response in the graph (following calibration) does not appear flat

Cause 1:

There are cases where the graph does not appear flat (even when selecting ALL CH ADJUST in the Auto MCACC Setup)

This is due to adjustments made to compensate for room characteristics to achieve optimal sound.

Cause 2:

Areas of the graph may appear identical (before and after) when there is little or no adjustment needed.

Cause 3:

The graph may appear to have shifted vertically when comparing before and after measurements.

Adjustments made with the “Manual MCACC” setup do not change the graph

Cause:

Despite level adjustments being made, the filters used for analysis may not display these adjustments in the graphical output.

However, these adjustments are taken this into account by the filters dedicated to overall system calibration.

Lower frequencies do not seem to have been calibrated for SMALL speakers

Cause 1:

Low frequencies used in bass management (the subwoofer channel) will not change for speakers that have been specified as SMALL in the configuration.

Cause 2:

Calibration is performed, but due to your speakers' low frequency limitations, no measurable sound is output for display.

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